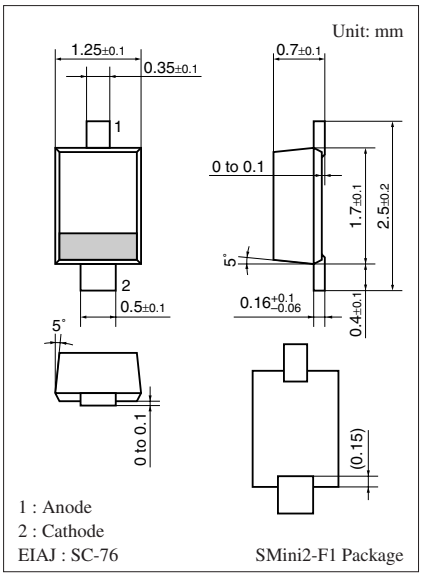
MA2ZD14

Silicon epitaxial planar type

For high speed switching



Marking Symbol: 2N

■ Features

- Low forward voltage: $V_F < 0.40$ V

■ Absolute Maximum Ratings $T_a = 25°C$

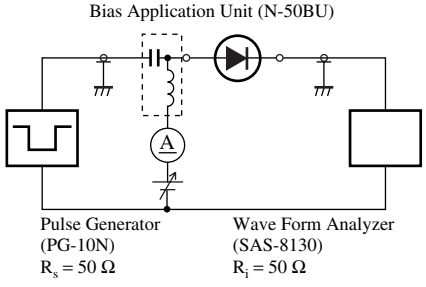
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	20	V
Repetitive peak reverse voltage	V_{RRM}	20	V
Forward current (Average)	$I_{F(AV)}$	100	mA
Peak forward current	I_{FM}	300	mA
Non-repetitive peak forward surge current *	I_{FSM}	1	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−55 to +125	°C

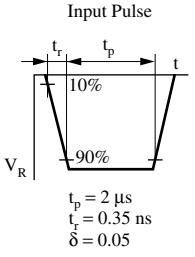
Note) ∗: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

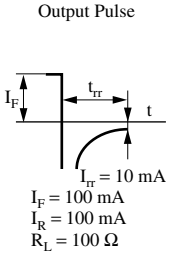
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

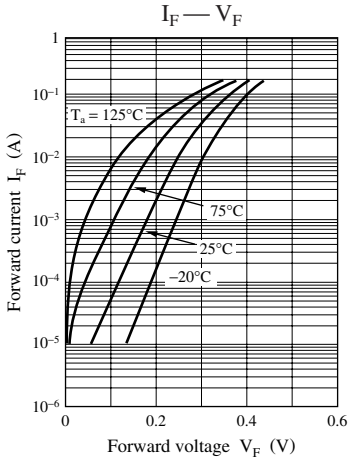
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	$I_F = 5$ mA			0.27	V
	V_{F2}	$I_F = 100$ mA			0.40	
Reverse current	I_R	$V_R = 10$ V			20	μA
Terminal capacitance	C_t	$V_R = 0$ V, f = 1 MHz		25		pF
Reverse recovery time *	t_{rr}	$I_F = I_R = 100$ mA $I_{rr} = 10$ mA, $R_L = 100$ Ω		3		ns

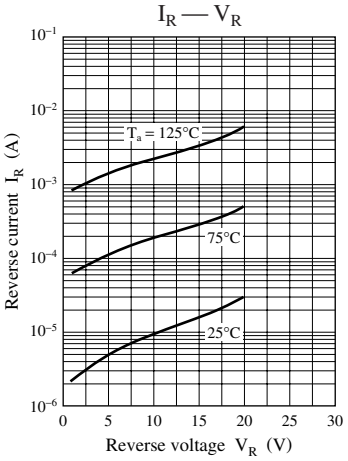
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
3. Absolute frequency of input and output is 250 MHz.
4. ∗: t_{rr} measurement circuit








I_F — V_F
Forward current I_F (A)
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
T_a = 125°C
75°C
25°C
−20°C
0
0.2
0.4
0.6
Forward voltage V_F (V)


I_R — V_R
Reverse current I_R (A)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
T_a = 125°C
75°C
25°C
0
5
10
15
20
25
30
Reverse voltage V_R (V)

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